

1 Job Details & Summary

1.1 Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Thread	Top (ft)	Bottom (ft)	Excess (%)
Casing	Outer	7	6.276	26	LTC	0	6985	0
DrillPipe	Inner	4	3.34	14	XT39	0	6200	0
Casing	Inner	4.5	4	11.6	LTC	6200	16585	0
Open Hole	Outer	n/a	6.13	n/a	n/a	6985	16590	10

1.2 Equipment / People

Unit Type	Unit	Employee #1	Mileage
Field Bin	601		160
Bulk Trailer	503	Cook, John	160
Cement Pump	103	Montoya, Hector	160
Light Duty Pickups	8	Hyde, Andrew	160
Light Duty Pickups	51	Saldivar, Jesus	160

1.3 Timing

Event	Date/Time
Call Out	4/14/2017 21:30
Depart Facility	4/14/2017 23:00
On Location	4/15/2017 01:00
Rig Up Iron	4/15/2017 01:15
Job Started	4/15/2017 05:00
Job Completed	4/15/2017 08:42
Rig Down Iron	4/15/2017 09:00
Depart Location	4/15/2017 10:30

1.4 General Job Information

Metrics	Value
Well Fluid Density	9.2 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	350 bbls
Rig Circulation Time	1.5 hours
Calculated Displacement	203 bbls
Actual Displacement	218 bbls
Total Spacer to Surface	25 bbls
Total CMT to Surface	20 bbls

1.5 Well Fluid Details

Metrics	Value
Plastic Viscosity	4
Yield Point	1
10 sec. SGS	1
10 min. SGS	2
30 min. SGS	-
Filtrate	-
Flow Line Temp.	99

1.6 Job Details

Metrics	Value
Flare Prior to Job	No
Flare During Job	No
Flare at End of Job	No
Well Full Prior to Job	Yes
Well Fluid Density Into Well	9.2 lb/gal
Well Fluid Density Out of Well	9.2 lb/gal

1.7 Job Details (cont.)

Metrics	Value
BHCT	220 °F
BHST	220 °F

1.8 Circulation

Lost Circulation Experienced
No



1.9 Job Execution Information

Job	Fluid	Product	Function	Density (lb/gal)	Yield (ft ³ /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sks)	Volume (bbl)	Top (ft)
1	1	CD Spacer	Spacer	11.00			33.75		25.00	5100
1	2	ALTCem P50-X1	Primary	13.50	1.60	8.01		678.00	192.84	6200
1	3	Water + MMCR + Chems	Displacement	8.34			41.81		20.00	15313
1	4	Water + Chems	Displacement	8.33			41.91		130.00	6949
1	5	Water + MMCR	Displacement	8.33			41.90		20.00	5429
1	6	Water	DisplacementFinal	8.33			42.00		59.00	0

1.10 Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	1	Spacer	CD Spacer	ASR-20	StrengthRetrogression	179.40	lb/bbl
1	1	Spacer	CD Spacer	AR-20	Retarder	0.60	lb/bbl
1	1	Spacer	CD Spacer	AVS-10	Viscosifier	0.80	lb/bbl
1	2	Primary	ALTCem P50-X1	ACG-10	Cement	50.00	%
1	2	Primary	ALTCem P50-X1	AFA-10	Extender	50.00	%
1	2	Primary	ALTCem P50-X1	ABX-10	BondEnhancer	3.00	%BWOB
1	2	Primary	ALTCem P50-X1	ADF-11	Defoamer	0.30	%BWOB
1	2	Primary	ALTCem P50-X1	AFL-10	FluidLoss	0.40	%BWOB
1	2	Primary	ALTCem P50-X1	AR-20	Retarder	0.20	%BWOB
1	2	Primary	ALTCem P50-X1	AVS-10	Viscosifier	0.10	%BWOB
1	2	Primary	ALTCem P50-X1	AVS-50	Viscosifier	4.00	%BWOB
1	2	Primary	ALTCem P50-X1	AXE-20	Extender	3.00	lb/sk
1	3	Displacement	Water + MMCR + Chems	AR-61	Retarder	0.10	gal/bbl
1	3	Displacement	Water + MMCR + Chems	ASF-50	ClayProtection	0.08	gal/bbl
1	3	Displacement	Water + MMCR + Chems	Biocide	Other	0.01	gal/bbl
1	4	Displacement	Water + Chems	ASF-50	ClayProtection	0.08	gal/bbl
1	4	Displacement	Water + Chems	Biocide	Other	0.01	gal/bbl
1	5	Displacement	Water + MMCR	AR-61	Retarder	0.10	gal/bbl

2 Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Call Out	4/14/2017	21:30					BJ crew got called out and requested on location at 3:30
2	Depart Yard	4/14/2017	23:00					BJ crew leaves yard
3	Arrive On Location	4/15/2017	01:00					Bj crew arrives on location
4	Safety Meeting	4/15/2017	01:05					BJ crew talks about the hazards of spotting in equipment and rigging up
5	Rig Up	4/15/2017	01:15					Rig up
6	Waiting	4/15/2017	02:00					Wait for rig crew to finish running drill pipe.Wait 30 minutes before stabbing Weatherford cement head due to loss of wheel valve, once it was found the head was screwed into the drill pipe.
7	Safety Meeting	4/15/2017	04:00					BJ and rig crew talk about the hazards of pumping the job
8	Fill Lines	4/15/2017	05:00	8.33	2	3	300	Pump 3 bbls to fill lines
9	Pressure Test	4/15/2017	05:04					Pressure test pumps and lines to 5000 psi
10	Pump Water	4/15/2017	05:10	8.33	5	10	1100	Pump 10 bbls of water
11	Pump Spacer	4/15/2017	05:14	11	5	25	1200	Pump 25 bbls of CD spacer at 11 ppg
12	Pump Cement	4/15/2017	05:18	13.5	5	193	900	Mix up and pump 678 sks of ALTCem P50-X1 cement at 13.5 ppg, yield 1.60, 8.01 gal/sk, 193 bbls
13	Shutdown	4/15/2017	06:08					Shutdown to line up to wash pumps and lines
14	Wash Pumps And Lines	4/15/2017	06:09					Wash pumps and lines to the pit
15	Drop Plug	4/15/2017	06:14					Drop plug
16	Pump Displacement	4/15/2017	06:18	8.33	5	30	1150	Pump 203 bbls of water displacement with kcl, biocide
17	Slow Rate	4/15/2017	06:21	8.33	2	20	872	Slow Rate to 2 bpm to let plug goes through tool never seen pressure increase
18	Increase Rate	4/15/2017	06:34	8.33	5	133	2150	Pick rate back up to 5 bpm
20	Slow Rate	4/15/2017	07:19	8.33	2	20		Slow rate to bump plug
21	Shutdown	4/15/2017	07:34					Shutdown at 203 bbls away never landed the plug
22	Pump Water	4/15/2017	07:35	8.33	2.5	5	1200	Customer wanted to pump 5 bbls and never landed
23	Shutdown	4/15/2017	07:39					Shutdown went and talked to customer



24	Pump Water	4/15/2017	07:44	8.33	2.5	10	1450	Customer request was to pump 10 more bbls
25	Shutdown	4/15/2017	07:49					Shutdown never landed plug, decided to check floats and sting out
26	Check Floats	4/15/2017	07:50					Got .5 bbls back to the truck
27	Pressure Up	4/15/2017	08:15					Pressure up to psi to sting out
28	Pump Water	4/15/2017	08:17	8.33	8	160	2260	Pump 160 bbls of water
29	Shutdown	4/15/2017	08:42					Shutdown release pressure
29	Safety Meeting	4/15/2017	08:50					BJ crew talked about the hazards of rigging down
30	Rig Down	4/15/2017	09:00					Rig down
31	Depart Location	4/15/2017	10:30					Depart location
32	Other	4/15/2017	10:31					Circulated out 20 bbls cement to surface